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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,096	02/19/2004	Wei Chen	U 015037-6	3538
140	7590	03/24/2005	EXAMINER	
LADAS & PARRY			BROWN, JENNINE M	
26 WEST 61ST STREET			ART UNIT	
NEW YORK, NY 10023			PAPER NUMBER	
			1755	

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/783,096

Applicant(s)

CHEN ET AL.

Examiner

Jennine M. Brown

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1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/15/05</u> . | 6) <input type="checkbox"/> Other: ____  |

***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on 7/15/2004 was considered by the examiner.

***Priority***

Acknowledgment is made of applicant's claim for foreign priority. It is noted, however, that applicant has not filed a certified copy of CN 03105214.2 (02/24/2003) or CN 03153662.X (08/20/2003) application as required by 35 U.S.C. 119(b).

***Claim Objections***

Claim 20 is objected to because of the following informalities: instead of referring to claim 16 for formula (I), it should be rewritten because there are two different methods claimed when one follows the dependency back to the independent limitation. Appropriate correction is required.

Claim 21 is objected to because of the following informalities: instead of referring to claim 16 for formula (I), it should be rewritten because there are two different methods claimed when one follows the dependency back to the independent limitation. Appropriate correction is required.

Claim 22 is objected to because of the following informalities: instead of referring to claim 15 for the catalyst component, it should be rewritten because there are two different methods claimed when one follows the dependency back to the independent limitation. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1-6, 13, 20-21, applicant has not defined how close to the claimed microns is included or excluded when claiming "less than [10] microns". Technically that may mean that there is no support material made from silica if the support has a value of zero. It is unclear if applicant intends for there to be no silica support material in the claim language.

Claims 7 and 8 each claim a particle size (e.g., 5-60 microns), which is outside of that in the primary claim (e.g., less than 10 microns). These claims are not further limiting to the primary claim.

Claim 11 does not further limit claim 10 because it improperly adds compounds into the Markush group that were excluded in claim 9.

Claim 15 recites the limitation "a titanium compound" in claim 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 25 seems mathematically incorrect or impossible as it has a ratio of three components (catalyst, alkyl aluminum and external electron donor). One cannot determine from the language how each of these components were combined for the

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ratio since the ratios as claimed are written in a format usually reserved for a ratio of two components. If components are to be added before divided, that should be stated. Furthermore, the examiner assumes that applicants mean to claim each of the components supra as molar ratios.

### ***Claims Analysis***

Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted). Claims 15-25 are herein considered product by process claims and will be examined as such.

Examiner assumes in an effort to forward prosecution that the silica support must be present in some percentage above 0%, not to include 0%.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spencer, et al. (US 6172173 B1) in view of Morini, et al. (US 5723400).

See entire document. Spencer, et al. disclose a silica support for catalysts having an average pore size of less than 10 microns (col. 4, l. 14-38). Spencer, et al. disclose a method of making a supported catalyst using said support with a titanium compound (col. 4, l. 39-col. 5, l. 60; col. 9, l. 23-36). Methods of polymerization of ethylene/ $\alpha$ -olefin copolymers for narrow molecular weight spherules and thin cast films (col. 5, l. 61-col. 6, l. 32). The magnesium compound is a alkyl or alkoxy magnesium compounds are disclosed as well as the use of alkyl halides (col. 8, l. 48-col. 9, l. 21). An aluminum cocatalyst/activator is also disclosed (col. 11, l. 22-56).

Spencer, et al. do not specifically disclose halogenation of the magnesium compound with a chlorinating agent or the use of an electron donor compound such as a 1,3-diether. Morini, et al. disclose a method of making a solid catalyst component for olefin polymerization comprising contacting a magnesium halide with a titanium compound and a 1,3-diether compound, specifically 9,9-bis(methoxymethyl)-4-

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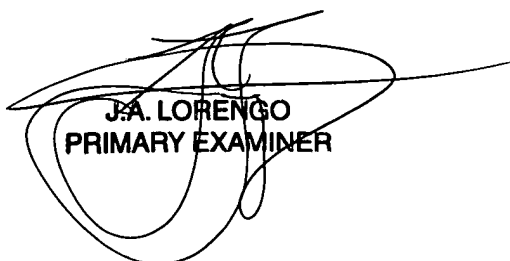
tertbutylfluorene (col. 1, l. 42-col. 2, l. 27; col. 17, l. 40-col. 19, l. 21). It would have been obvious to one of ordinary skill in the art to modify the catalyst composition of Spencer, et al. to use the activated magnesium halide composition and use the 1,3-diether compound of Morini, et al. because these the activated magnesium halide and the 1,3-diether exhibit high activity and stereospecificity in the polymerization of olefins.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennine M. Brown whose telephone number is (571) 272-1364. The examiner can normally be reached on M-R 9:30 AM - 7:30 PM; Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jmb

  
J.A. LORENZO  
PRIMARY EXAMINER